PAT-NO: JP02000126892A

DOCUMENT-IDENTIFIER: JP 2000126892 A

TITLE: COATED ELECTRODE FOR WELDING STAINLESS STEEL

PUBN-DATE: May 9, 2000

INVENTOR-INFORMATION:

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APPL-NO: JP10319891

APPL-DATE: October 23, 1998

INT-CL (IPC): B23K035/365, B23K009/23

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a welding rod which is available for all-position welding even in welding a sheet, sufficiently applicable to the use in the high-current range, and excellent in burning-resistance of the welding rod by coating a coating flux containing TiO2, SiO2, metal carbonate, CaF2 and MnO2 of specified quantity in a stainless steel core.

SOLUTION: A coating flux containing, by weight, 30-60% TiO2, 3-10% SiO2, 5-30% metal carbonate, 1-10% CaF2, and 5-10% MnO2 to the total weight of the coating flux is coated on a stainless steel core. In this composition ≤5% calcium titanic acid may be contained separately from TiO2. Since MnO2 is added, and MnO2 is reacted with manganese oxide of low degree during

the
welding, the heating of the coating is prevented by the endothermic reaction,
the burning resistance of a welding rod can be improved, the viscosity of the
slag is dropped, and the bead shape in the vertical position is flat. Calcium
titanic acid improves the flowability of the slag to demonstrate the synergistic effect with MnO2.